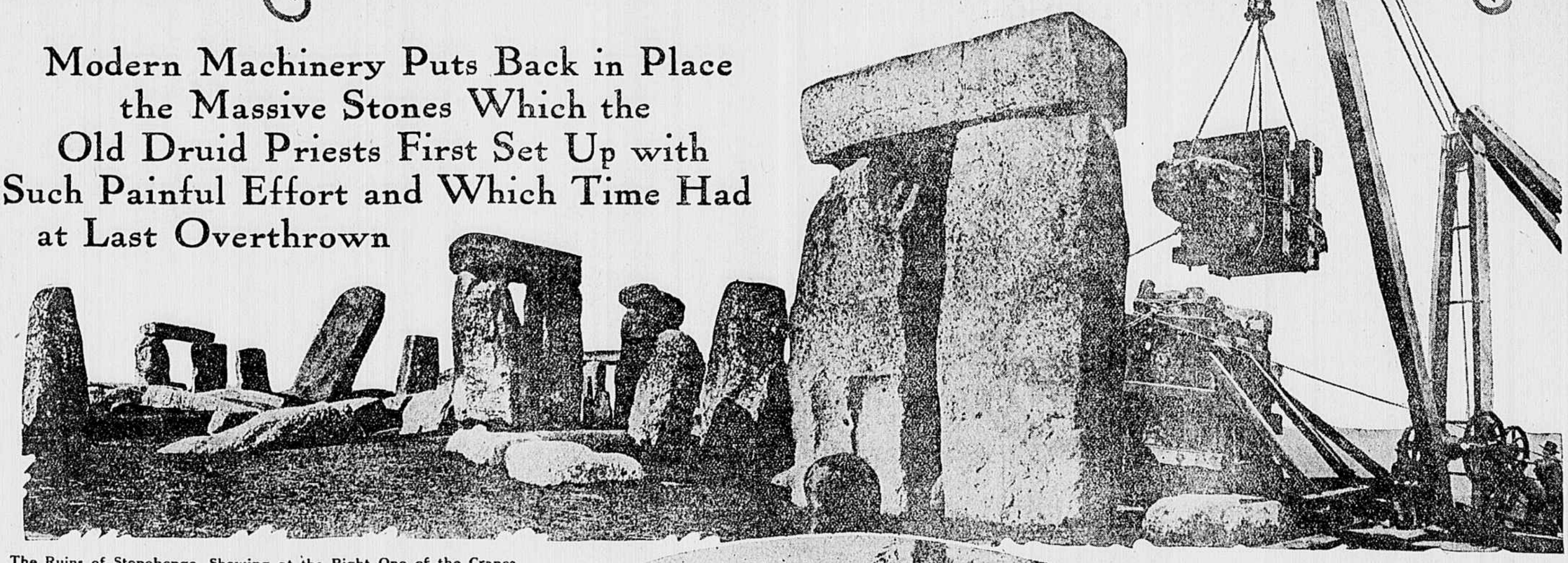
Rebuilding the Fallen Ruins of Ancient Stonehenge

Modern Machinery Puts Back in Place the Massive Stones Which the Old Druid Priests First Set Up with Such Painful Effort and Which Time Had at Last Overthrown



The Ruins of Stonehenge, Showing at the Right One of the Cranes Lifting a Fallen Lintel to Its Old Place on Top of a Pair of Upright Monoliths.

STONEHENGE, that mysterious circle of colossal stones which were set in place thousands of years ago on Salisbury Plain, England, by the painful efforts of prehistoric man, is being restored by modern machinery. For ages the great gray monoliths had resisted time, falling slowly and stubbornly one by one. Beneath a terrific storm awhile ago two of the largest fell, and then it was realized that unless immediate steps were taken for Stonehenge's preservation this monument of antiquity, perhaps the most extraordinary in all the world, would soon be little more than a shapeless heap.

So that is why to-day a donkey engine and immense cranes are seen at the side of this ancient temple of earliest man. Workmen swarm about the huge stones where the Druid priests carried on their rites before hundreds of worshippers, and the monoliths that were raised with such prodigious oil by the hands of men of the stone age are lifted with ease by the winches and cables, or swing through the air into place by a truer magic than that which by popular superstition explains their original placing.

The real antiquity of Stonehenge is unknown. It is asserted that the Druids, the priests of the early Britons, used it as an astronomical observatory and a temple 2,000 years before Christ. But even then it must have been very old, and various scientists have placed its building as from 10,000 to 50,000 years ago. It is even probable that another race than the Britons erected it. There are records of a powerful Neolithic, or Stone Age, maritime power which before history began established colonies throughout the then known world. This power was African, but not Egyptian. Dr. Cope Whitehouse, of New York, the distinguished Egyptologist, has called attention to the evidence in Egyptian records of a great maritime nation, established to the west of the Nile, that threatened Egypt's supremacy at the height of her greatness.

According to Mr. Whitehouse's theory, these people, as a great sea power, must have left traces of themselves all over the accessible world to which their ships traded. He holds the remarkable rock structure known as Fingall's Cave, in Scotland, to be clearly of human origin, and thinks it reasonable to believe that it was the work of the forgotten African race.

It is also reasonable to believe that Stonehenge is the creation of the same people, since both works belong to an advanced period of the Stone Age, with similar characteristics of rough grandeur. It need hardly be added that the discovery by Professor Norton of a temple west of the Nile of similar workmanship to Stonehenge strengthens the theory that a great maritime power, whose existence has been forgotten, covered Europe with their stone monuments.

The blocks of Stonehenge were originally arranged to form two ovals. There are now 140 of them, weighing from ten to seventy tons each. In the centre of the ovals is a huge flat calcareous stone which the Druids used as an altar. Upon the tops of the monoliths other enormous squared blocks were placed like lintels. The accomplishment of such a task by hands alone must ever remain a triumph of human determination and ingenuity. While the reconstruction is going on the huge stone mauls and axes that the builders used to rough-hew the glacial boulders into shape are frequently found. Apparently the stones were then raised into the position with wooden blocks and levers.

It was Sir Norman Lockyer, one of the most distinguished English astronomers who first dissipated some of the mystery of Stonehenge by proving that it had been used by the Druids or other prehistoric astronomers somewhat as a gigantic calendar. On the longest day of the year at the time they lived the rays of the rising sun passed over certain markers still known as the 'Slaughter Stone" and the "Heel" stone, and struck directly upon the altar. On no other day did this occur and so the Druids were enabled to know accurately the beginning of their year.

There is also no question that when this happened cruel sacrifices were offered. The restorers have found a circle of pits beyond the outer circle which are filled with human remains, evidently the ghostly relics of these sacrifices.

It is probable that the original temple was the inner smaller ring of stones and that the Druids built the outer ring, arranging the trilithons, as the pairs of uprights with their lintel are called, in a way to carry on their solar observations. The deposits about the bases of this inner circle certainly antedate those found at the bases of the larger.

The restoration is being done by the English Office of Works under the direction of archeologists experienced in the task of restoration of similar monuments. Never was the most precious of babies more carefully wrapped up than is one of these great monoliths before the sacrilegious jack sets to work upon it. Not only is it cradled in thick baulks of timber, but every cranny is filled up and padded with felt and wedges, and the whole framework is again supported by struts and steel joists. The excavation round the base is done with the most solicitous care so as to leave intact the shape of the original holes made to hold the stones and also to salve anything that may be found there, whether it be a stone hammer, a Roman sestertium, an old clay pipe or a penny of George III. It must be a very small object, indeed, that will escape the sieves of those who search.

There are many wonderful things about Stonehenge, and one that strikes the stranger with the greatest amazement is the apparently casual way in which the stones were made fast by the original builders. A monolith weighs, as has been said, anywhere from ten to seventy tons. It has, as a rule, an end dressed to a roughly tapering shape, and this end goes but a small number of feet underground and has round it a loose packing of boulders. Incidentally, it is a curious fact that while some of these boulders are of "sarsen," the same stone as the monoliths are made of, others are of greensand. In the case of the famous "leaning stone," now set upright again, the whole height of the monolith was 29 feet 8 inches, and it was buried in the earth to a depth of eight feet. Its brother stone was only 25 feet long and so had but four feet underground to support its 21 feet in the air, to say nothing of the lintel stone. This four feet of base was dressed in a particular shape, not tapering, but having a large projecting boss; yet even so, it fell and now lies on the ground broken right through at its very heart.

To the amateur, at any rate, it is wonderful that with such foundations the stones have stood as they have. In the case of all those that are being straightened, the packing boulders, their long task done, are examined and numbered and then will be reverently buried once more. In their place the stones are given a foundation of reinforced concrete, which will, of course, be discreetly buried beneath the turf.

While this giant surgery that is being practised on the trilithons is a wonderful thing to see, there is something else happening at Stonehenge less spectacular, but to the archeologist still more exciting. That is the uncovering of the burial pits already referred to. One by one, at an interval of about seven paces from one another, a whole ring of these newly discovered holes has been laid bare just inside the earthwork which surrounds Stonehenge. A clue from the old document known as Aubrey's map, which showed certain—now vanished—depressions in the turf, set the searchers looking for this ring of holes by means of a heavy steel bar with a sharp point. Once they found the first hole the others soon followed; the steel bar, instead of encountering the hard chalk, went right through; the turf was turned back and there, with all the fascinating accuracy of a puzzle, was the hole just where it ought to be.

That many dreadful scenes went on in ancient days within the great circles is certain. The human sacrifices of the Druids were peculiarly cruel, although many of their other religious rites were very beautiful and gentle. Their religion recognized spirits of the earth, the streams and woods and so on, as well as the greater ones of the sun and moon. The priestesses, or Druidesses, had charge of these softer phases of the ceremonials, and the painting on this page is a famous artist's conception of one of these milder rites. The Druidess, surrounded by her maidens, is offering sacrifice of flowers to the God of the River.

From relics found during the excavating those in charge have been enabled to reconstruct the methods by which Stonehenge was originally built. The immense stone hammers and mauls are clearly those used in dressing the monoliths. Not a single metal tool of any kind was discovered—only a slight copper stain on a stone. So the circles were almost certainly previous to the bronze age, the commencement of which in England is placed at about 2000 B. C.

The stones appear to have been carried in the glacial period to the vicinity of Stonehenge and then drawn to the site of the temple by rollers or on wooden sledges hauled by thong ropes. A strange sight it must have been when the Neolithic men dragged one of these huge monoliths across the plain, hundreds of men sweating and panting as they hauled at the long leathern ropes.

When a stone reached the temple site a hole was cut into the chalk rock of the plain, leaving an upright face on one side and a slope leading down into the hole along which the 70-ton stone was slid. It was then raised by packing up timber levers under the top end until a sufficient height had been reached to enable it to be hauled into an upright position. The rubble was then packed in with supporting stones.

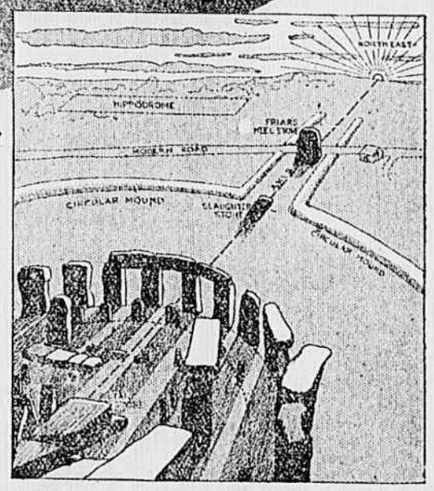
The date of the building of Stonehenge has been the subject of much speculation and study and has given rise to several conflicting theories. An interesting theory was advanced by Sir Norman Lockyer, director of the Solar Physics Observatory, who assumed that the people who built Stonehenge were not only sun-worshippers, but had progressed far in their knowledge of astronomy.

He bases his assumption upon the existence of a path leading from the central altar at Stonehenge to the spot where the sun first appears above the horizon at the solstice. The path is in reality the axis of the temple, a line drawn through the centre of the Altar Stones to the Slaughter Stones and thence to another stone called the Friar's Heel. A person standing at the altar and looking over the Friar's Heel would see the rising sun at the solstice, but slightly out of line.

Owing to the changes in the course of the earth around the sun the rising point of the sun changes slightly every year. Sir Norman assumed that when the temple was built the axis was directly in line with the rising sun at the solstice. Knowing the amount of change taking place each year it is not difficult for him to calculate how many years must have elapsed since the axis was exactly in line instead of approximately. By his computation the date of the building was given as 1680 B. C., or 3,600 years ago.

Other scientists, however, maintain that a Neolithic people built Stonehenge, and that this race had disappeared long before the time assigned by Sir Norman. There is not much to choose between the several theories. Each seems quite tenable until viewed in the light of its rival.

A Druidess Sacrificing Flowers to the God of the River. A Painting by Georges Girardot Depicting One of the Gentler Rites of the Druids. At Stonehenge Cruel Sacrifices of Youths and Maidens Were a Part of the Sun Worship of Which It Was the Temple.



A Diagram Illustrating How on Midsummer Morn the Rays of the Rising Sun Shot Over the Marking Stones and Fell Upon the Central Altar of the Great Stone Circles.

(C) 1920, International Feature Service, Inc.
Great Britain Rights Reserved.